REMARKS

Reconsideration of the application in light of the amendments and the following remarks is respectfully requested.

Status of the Claims

Claims 1-18, 20-26 and 28-32 are pending. Claim 27 is canceled by the above amendment without prejudice, or disclaimer of the subject matter contained therein. Claim 19 has been cancelled by a previous amendment. Claims 1, 11, 17, 20, 23, 26 and 28 have been amended. No new matter has been added.

Rejection Under 35 U.S.C. § 102

Claims 1-13, 17, and 23-26 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,192,109 to Amrany et al. ("Amrany"). The Examiner contends that Amrany discloses all the features recited in claims 1-13, 17 and 23-26 including determining a switch hook status.

Amended claim 1 now recites "determining a status of a telephone hookswitch by measuring a current through the digital subscriber line." Amended independent claims 11, 17, 23 and 26 now also recite the step of determining hookswitch status by measuring a current through a digital subscriber line. This feature is supported in the Specification at, generally, page 14, lines 6-10.

In contrast, Amrany discloses detecting the switch hook status by measuring the impedance of the transmission line. Amrany discloses that the "invention utilizes the fact that Off-Hook unfiltered phones, compared to low-pass filtered phones, produce significant changes in the impedance of the transceiver." Amrany further discloses "[w]hen an unfiltered phone is in the Off-Hook position, the change in impedance is detected . . . ." (Amrany, column 6, lines 36-48.) "Direct impedance measurements are conducted by manipulating switch 102 and measuring the representative output voltage at the output of the analog to digital converter 104 . . . ." (Amrany, column 6, lines 56-59.) Depending on the measured impedance value, a digital signal processor will consider all phone equipment as either on-hook or off-hook. (Amrany, column 6, line 53 through column 7, line 62.) Amrany does not disclose the feature of determining hookswitch status

by measuring a current through a digital subscriber line as recited in amended independent claims 1, 11, 17, 23 and 26. Therefore, Amrany does not disclose each and every feature of amended independent claims 1, 11, 17, 23 and 26. Thus, Amrany does not anticipate claims 1, 11, 17, 23 and 26.

Claims 2-10 depend from amended claim 1. Claims 12 and 13 depend from amended claim 11. Claims 24 and 25 depend from amended claim 23. Applicant submits that dependent claims 2-10, 12-13 and 24-25 are patentable over Amrany for at least the same reasons as their respective base claims. Withdrawal and reconsideration of the rejection is requested.

Claim 22 stands rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,266,348 to Gross et al. ("Gross"). Applicants respectfully traverse this rejection.

The Examiner contends that Gross discloses monitoring transmission characteristics, and detecting disturbance events from changes in error rate characteristics, where the change in error rate is due to an off hook event. The Examiner contends that Gross reads on the present claim.

Claim 22 recites the step of "periodically initiating detection routines." In contrast, Gross discloses detecting disturbance events by monitoring changes in error rates over a number of frames. Gross discloses that a "sudden change in one or more of the monitored characteristics from one frame to another, followed by a smaller or no change in subsequent frames, indicates a disturbance event to which the modem should respond." (Gross, column 10, lines 51-55.) The detecting process disclosed by Gross is, therefore, a reactive and not a "periodic" process, and Applicants submit that Gross does not disclose "periodically initiating detection routines" as recited in claim 22. Therefore, Gross does not disclose each and every feature of claim 22. Thus, Gross does not anticipate claim 22. Withdrawal and reconsideration of the rejection is requested.

Rejections under 35 U.S.C. § 103

Claims 14-16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Amrany in view of U.S. Patent No. 6,445,733 to Zuranski et al. ("Zuranski") and further in view of U.S. Patent No. 5,999,564 to Dagdeviren. The Examiner contends that Amrany discloses most of the features of claims 14-16.

However, the Examiner acknowledges that Amrany does not disclose the steps of "scheduling a time frame for performing said echo channel measurement procedure" and "discontinuing transmission of data by a first modem" as recited in claim 14. The Examiner cites Zuranski as disclosing scheduling and acknowledging echo measurements. Further, the Examiner cites Dagdeviren as disclosing "a central site (i.e., second) modem transmitting (i.e., initiating transmission of) an echo testing signal when a client (i.e., first) modem is quiescent (i.e. discontinuing transmission of data)" With respect to the rejection of claim 15, the Examiner cites Amrany as disclosing "adjusting transmit level, reference impedance and matching impedance (i.e., retraining) in response to echo measurements." With respect to the rejection of claim 16, the Examiner cites Amrany as disclosing "adjusting transmit level, reference impedance and matching impedance (i.e., retraining) only in response to sudden feature change (i.e., resuming normal communication otherwise)." (Detailed Action, page 7.) The Examiner states that it would have been obvious to a person of ordinary skill in the art at the time of the invention to combine Amrany, Zuranski and Dagdeviren to achieve the inventions of claims 14-16.

Claims 14-16 depend from amended claim 11, and recite their own features along with all the features of their base claim and any intervening claims. The combination of Amrany, Zuranski and Dagdeviren does not disclose, or suggest, the features set forth in amended claim 11, as discussed above. Therefore, Applicant submits that claims 14-16 are patentable over the combination of Amrany, Zuranski and Dagdeviren for at least the same reasons as amended claim 11. Withdrawal and reconsideration of the rejection is requested.

Claim 18 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Amrany in view of U.S. Patent No. 5,265,151 to Goldstein. The Examiner contends that Amrany discloses most of the features of claim 18. However, the Examiner acknowledges that Amrany does not disclose the step of "obtaining line quality information further comprises obtaining an error rate" as recited in claim 18. The Examiner cites Goldstein as disclosing the use of error rate as a measure of line quality. The Examiner states that it would have been obvious to a person of ordinary skill in the art at the time of the invention to combine Amrany and Goldstein to achieve the invention of claim 18.

Claim 18 depends from amended claim 17, and recites its own features along with all the features of its base claim. The combination of Amrany and Goldstein does not disclose, or suggest, the features set forth in amended claim 17, as discussed above. Therefore, Applicant submits that claim 18 is patentable over the combination of Amrany, Zuranski and Dagdeviren for at least the same reasons as amended claim 17. Withdrawal and reconsideration of the rejection is requested.

Claim 20 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,229,855 to Takatori in view of Amrany. The Examiner contends that Takatori discloses most of the features of claim 20. However, the Examiner acknowledges that Takatori does not disclose signal level adjustment occurring in response to a change in hookswitch state, as recited in claim 20. The Examiner cites Amrany as disclosing adjusting transmit level in response to a change of hookswitch state. The Examiner states that it would have been obvious to a person of ordinary skill in the art at the time of the invention to combine Takatori and Amrany to achieve the invention of claim 20.

Amended independent claim 20 now recites "determining a change in a telephone hookswitch from being in an on-hook state to being in an off-hook state by monitoring the current through the digital subscriber line." As discussed above, Amrany and, thus, the combination of Takatori and Amrany neither discloses nor suggests determining a change in hookswitch state by "monitoring the current through the digital subscriber line." Therefore, the combination of Takatori and Amrany does not result in the invention of amended claim 20. Withdrawal and reconsideration of the rejection is requested.

Claim 21 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Takatori in view of Amrany and further in view of U.S. Patent No. 6, 426,961 to Nimmagadda. The Examiner contends that the combination of Takatori and Amrany discloses most of the features of claim 21. However, the Examiner acknowledges that Takatori and Amrany do not disclose adjusting signal level according to a user selection from among multiple signal level settings, as recited in claim 21. The Examiner cites Nimmagadda as disclosing user selection of signal level. The Examiner states that it would have been obvious to a person of ordinary skill in the art at the time of the invention to combine Takatori, Amrany and Nimmagadda to achieve the invention of claim 21.

Claim 21 depends from amended claim 20, and recites its own features along with all the features of its base claim. The combination of Takatori, Amrany and Nimmagadda does not disclose, or suggest, the features set forth in amended claim 20, as discussed above. Therefore, Applicant submits that claim 21 is patentable over the combination of Takatori, Amrany and Nimmagadda for at least the same reasons as amended claim 20. Withdrawal and reconsideration of the rejection is requested.

Claim 27 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Takatori in view of Goldstein and further in view of U.S. Patent No. 6,111,936 to Bremer. Claim 27 has been cancelled and, thus, the rejection is rendered moot.

Claims 28-32 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Nimmagadda in view of Amrany. The Examiner contends that Nimmagadda discloses most of the features of claim 28. However, the Examiner acknowledges that Nimmagadda does not disclose determining the off-hook state by detecting operational changes in a digital subscriber line, as recited in claim 28. The Examiner cites Amrany as disclosing "determining hook state using changes in signal features (i.e., modem operation)." (Detailed Acton, page 10, item 35.) The Examiner states that it would have been obvious to a person of ordinary skill in the art at the time of the invention to combine Nimmagadda and Amrany to achieve the invention of claim 28.

Amended independent claim 28 now recites "determining the off-hook state by detecting operational changes in a digital subscriber line modem, including the step of detecting a current flowing through the line." As discussed above, Amrany and, thus, the combination of Nimmagadda and Amrany neither discloses nor suggests determining the off-hook state by "detecting a current flowing through the line." Therefore, the combination of Nimmagadda and Amrany does not result in the invention of amended claim 28.

The Examiner contends that the combination of Nimmigadda and Amrany also discloses or suggests the features of claims 29-32. Claims 29-32 depend from amended claim 28, and recite their own features along with all the features of their base claim and any intervening claims. The combination of Nimmagadda and Amrany does not disclose, or suggest, the features set forth in amended claim 28, as discussed above. Therefore, Applicant submits that claims 29-32 are

patentable over the combination of Nimmagadda and Amrany for at least the same reasons as amended claim 28. Withdrawal and reconsideration of the rejection is requested.

CONCLUSION

Each and every point raised in the Office Action dated March 18, 2004 has been addressed on the basis of the above amendments and remarks. In view of the foregoing it is believed that claims 1-18 and 20-32 are in condition for allowance and it is respectfully requested that the application be reconsidered and that all pending claims be allowed and the case passed to issue.

If there are any other issues remaining which the Examiner believes could be resolved through a Supplemental Response or an Examiner's Amendment, the Examiner is respectfully requested to contact the undersigned at the telephone number indicated below.

Dated: September 15, 2004

Respectfully submitted,

By _____

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